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On behalf of a mutable future

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On Behalf of a Mutable Future

1. Introduction

Everyone knows – anyway, nearly everyone believes – that we can't change the past. If John F. Kennedy was shot in Dallas in 1963, as he was, then no one can subsequently bring it about that he wasn't. Of course, we may decide to erase this event from our collective memories, but, so the thought goes, our doing so would not and could not effect any change in the past itself. However great our powers may be, nothing anyone or anything can do can change the fact that Kennedy was shot. The past is immutable.

It is, then, part of our common-sense conception of the world that we can't change the past. But what about the future? Here matters are not so clear. In fact, we are all accustomed to hearing it maintained that while we can't change the past, we may indeed be able to change the future. Presently, for instance, if you run a simple Google search for 'We can change the future' and open the first result, you'll be treated to a three-minute tribute to U.S. President Barack Obama from the Milwaukee for Obama Choir titled "‘Yes We Can’ Change the Future." And, of course, countless other expressions of this sentiment could be produced. On this line of thinking, it seems, what has happened has passed into the realm of the immutable, but what is to come has not – not yet – and so may not be 'too late' to change.

Curiously, however familiar is the notion that we can change the future from popular-level discourse, it would be almost entirely unfamiliar if we were to look exclusively at the history of philosophy (say, philosophy prior to the 20th century), and in particular at the long, rich history of philosophical reflection about time, free will, and fatalism. To my knowledge, not only is it the case that no significant figure in the history of philosophy defended the view that the future is mutable,

one cannot even find a serious *discussion* of this thesis amongst philosophers. In short, it has been (almost) universally taken for granted that this sort of change is impossible – that the future is no more mutable than the past, and that any thoughts to the contrary must ultimately be based on elementary confusions. Who might suggest that what will happen might later be such that it won't?

The purpose of this paper is to argue that this historical neglect has been a mistake, and that the thesis that the future is mutable has surprisingly more going for it than anyone has yet realized. My goal in this paper, of course, is *not* the unrealistic one of singlehandedly overturning the consensus view, but rather to display what I take to be the unacknowledged virtues of an ignored position, a position that (I hope to show) deserves the status of a theoretical contender in these debates.

I said a moment ago that no figure I am aware of in the history of philosophy defends the mutability of the future. I could almost extend this to claim to no significant philosophical figure *whatever*, but there is one important exception to this trend in all of philosophy: Peter Thomas Geach. In his 1977 monograph, *Providence and Evil*, Geach became the first to seriously articulate and defend the thesis that the future is mutable. Unfortunately, however, the distinctive view he proposed has had little impact on the literature on these topics. Admittedly, this is perhaps because Geach himself did not systematically (or carefully) develop the view he was proposing. Moreover, Geach's discussion took place in the context of traditional debates in the philosophy of religion concerning the relationships between divine foreknowledge, omniscience, and free will. Consequently, what attention the view has received has come from philosophers of religion. However, the fundamental view Geach articulates does not depend on anything essentially religious or theistic, and it is time, I think, for his view to be introduced to a wider philosophical audience.¹

¹ For a development of Geach's view as it relates to these issues in philosophy of religion, see Todd 2011 (reprinted in Fischer and Todd 2015: Ch. 11). (Some of the material in section 3 below is taken

The plan of the paper is as follows. First, I simply present Geach's view and develop in more detail the primary argument he employed on its behalf, an argument from the nature of *prevention*. Next, I explain how the view enables a unique response to arguments for *logical fatalism*, a response which some may judge to have some advantages over its more familiar rivals. I then consider two further ways one might motivate the view. First, I claim, the view can help to make sense of the utility of knowledge of the future. Next, I try to show that the thesis that the future is mutable can provide significant theoretical benefits in accounting for the (notoriously vexed) semantics of the English progressive. Before setting out, however, it is worth noting once more what my aims are – and must be – in a paper of this kind. I cannot discuss (let alone adequately respond to) all the various objections one might have to the arguments I will discuss. The point of these arguments is to show that there is a view here worth objecting to in the first place. That is, the point of my paper is to make the opening moves. The counter-moves I must leave (mostly) for another day.

2. The Mutable Future View

To begin, what is distinctive of Geach's view is that it is possible for something X to be such that, at t_1 , it will happen at t_{10} , but at t_3 such that it will not happen at t_{10} . That is, at t_1 , it was true that X would happen at t_{10} , but at t_3 , something intervened to make it the case that X would not happen at t_{10} . The future thus *changes* in the sense that something was going to happen, but now no longer is going to happen, and does not happen. In support of his case, Geach points to the logic of

from this paper.) Besides Geach, there is only one other philosopher I'm aware of who defends the mutability of future: Mark Hinchliff. Hinchliff defended the view in a talk given at the University of California, Riverside, in the Fall of 2007, and I am indebted to Hinchliff for bringing the view to my attention, and for helpful discussion about these issues.

prevention. According to Geach, those things are *prevented* from happening which were going to happen but nevertheless do not happen. Moreover, for Geach, if something was going to happen, then it was such that it would happen, and vice versa. (I return to this claim on page 11 below.) The result (according to Geach) is that what will occur as of one time may later be such that it will not occur. It seems best to let Geach (largely) speak for himself. In considering one example, Geach asks rhetorically:

But what then is prevented? Not what did happen, but assuredly what was going to happen. The aeroplane was going to crash into the sea and 100 men were going to be drowned; the pilot's prompt action prevented this. For not everything that does not happen is prevented: only what was going to happen.²

Geach says he takes it as a "truism" that "anything that is prevented is something that was going to happen but didn't happen."³ He then asks:

But if something did happen, doesn't this show it was after all going to happen? Certainly; but not that it *always* was going to happen. Perhaps, before the preventative action was taken, not this but something else was going to happen; but then the preventative action was taken, and after that *this* was going to happen and did happen. Before the pilot's daring

² Geach 1977: 47.

³ Geach 1977: 48

manoeuvre, the plane was going to crash; but after that the plane was going to land safely and did land safely.⁴

Geach goes on:

So what was going to happen at an earlier time may not be going to happen at a later time, because of some action taken in the interim. This is the way we can change the future: we can and often do bring it about that it will not be the case that p , although before our action it was going to be the case that p ; it was right to say, then, 'It is going to be the case that p '. Before the operation it was right to say 'Johnny is going to bleed to death from the injury': after the operation this was no longer the case.⁵

So the view is that the future is *mutable* in a particular way: certain events sometimes can make it so that what will happen ends up not happening, or that what previously was such that it will not happen *does* happen. Call the thesis that the future is mutable in this way Mutable Futurism – hereon simply MF. And call the proponent of this view the mutable futurist. Note that, on this view, we get the following unique result: it could very well be that at $t1$ it was true that X would happen at $t10$, but that, at some time later than $t10$, it is not true that X *happened* at $t10$. In other words, the fact that it was true at $t1$ that X would happen at $t10$ does not guarantee that, if we are now at some time later than $t10$, then, looking backwards, X *happened* at $t10$. At $t1$, it could have been true that X

⁴ Geach 1977: 48.

⁵ Geach 1977: 50.

would happen at t_{10} , but at t_{20} , it could be false that X happened at t_{10} .⁶ After all, the future might have changed in between t_1 and t_{10} . No other view of the future maintains this distinctive thesis.

Briefly, and limiting our attention only to those propositions of the form “X will happen at t_{10} ,” it might be helpful to compare MF with some of its more familiar rivals. The standard view is that such propositions about the future cannot change their truth values over time, whether from true to false or from false to true. For instance, if it is true that X will happen at (some later time) t_{10} , then this has always been true, and cannot change in truth value, at least prior to t_{10} (when, so the thought would go, it is no longer true that X *will* happen at t_{10}).⁷ Another familiar view – the broadly ‘Aristotelian’ or ‘open future’ view – would have it that some propositions (of the relevant form) about the future can indeed become true over time. On this view, it is not true at t_1 that X will happen at t_{10} unless (say) it is causally necessary – determined – at t_1 that X happens at t_{10} . Such causal factors may not be in place at t_1 , but may come to be in place at t_3 , in which case this proposition becomes true at t_3 whereas it previously was not. On this sort of model, as time marches on, possibilities dwindle: for instance, various outcomes for the U.S. presidential election in 2016 may now be (causally) possible, but as candidates fall by the wayside, certain possibilities for the election are “pruned off”. If the possibilities for the election narrow to *one* (say, that Hillary

⁶ The reason for the past-tense construction is the following. The mutable futurist plainly will not want to say that its being true at t_1 that X will happen at t_{10} does not entail that at t_1 X will happen at t_{10} . Nor will she want to say that its being true at t_1 that X will happen at t_{10} does not entail that X (tenselessly) “happens” at t_{10} . Rather, if she countenances such tenseless facts at all, she will say that ‘X happens at t_{10} ’ is true iff X has happened at t_{10} , is happening at t_{10} , or will happen at t_{10} . In this case, then, its being true at t_1 that X will happen at t_{10} *does* entail that X “happens” at t_{10} . She will just insist that it remains possible up until t_{10} that it becomes false that X “happens” at that time. It remains the case, however, that its having been true at t_1 that X would happen at t_{10} does not guarantee that if we are at a time later than t_{10} that X happened at t_{10} . After all, the future could have changed.

⁷ This is one core aspect of the view that A.N. Prior (1967) calls “Ockhamism”; for a recent defense of Ockhamism, see Rosenkranz 2012 (reprinted in Fischer and Todd 2015: Ch. 16.).

Clinton wins the election), then (and only then) it becomes true that Hillary Clinton will win the election in 2016. On this view, then, such propositions about the future can become true, but this view would deny that if such a proposition is indeed true that it can subsequently become false (at least prior to t_{10}).⁸ If it becomes determined that Hillary shall win in 2016, it cannot later become undetermined whether she will win in 2016. Thus, both such views would affirm that its having been true at t_1 that X would happen at t_{10} guarantees that, if we are at a time after t_{10} , that X *happened* at t_{10} .

The mutable futurist's picture is different. On MF, such propositions can both go from being false to being true, and, crucially, from being true to being false. At t_1 , for instance, it may be false that X will happen at t_{10} , but at t_3 something intervenes to prevent what was going to happen at t_{10} from happening at t_{10} , with the result that now X *is* going to happen at t_{10} . On the other hand, at t_1 it may be true that X will happen at t_{10} , but at t_3 something could intervene to make it the case that it is now false that X will happen at t_{10} . I take it that only on this view is it genuinely appropriate to say that the future – that is, what will happen – *changes*. Intuitively, for the future to *change*, we need it that something that was going to happen is now no longer going to happen. On the Aristotelian view, however, all we get is that *more things* become such that they will happen over time, but we never get it that some one of those things now won't; one could never point to some given event and say that it was once part of the future but now it isn't. I think it would thus be at best misleading to characterize the Aristotelian view as one on which the future changes. For the future to have *changed*, we need it that it was true at t_1 that X was going to happen at t_{10} , and yet, well, X did not in fact happen at t_{10} (since the future changed!). Again, only MF delivers this unique result.

⁸ For more on this sort of open future view, see, e.g. Prior 1967: ch. 7, and (for a recent overview) Torre 2011. See further Todd and Fischer 2015: 30 – 38 and Todd forthcoming.

3. The Argument from Prevention

Well, what can be said on behalf of MF? The first thing to say on its behalf is simply that we very often *say* that things were going to happen but were prevented from happening. The plane was going to crash, but it didn't. Johnny was going to bleed to death, but he didn't. And not only do we say these things, but they seem true. Once we recognize it as such, the mutability of the future actually turns out to be a presupposition of a wide range of our discourse. So the first thing to say on behalf of MF is that it very often seems true to say that the future changed.

Of course, many will want to attempt to explain away the appearances here. The second thing to say on behalf of MF is that explaining it all away turns out to be surprisingly difficult. Recall Geach's example of the plane crash; the plane was going to crash, but the pilot prevented this from happening. The most obvious way to try to explain away the appearance of a changing future here is to maintain that it was never true that the plane was going to crash *simpliciter*, but only that it was going to crash *unless some preventative action is taken*. In other words, one interprets 'The plane is going to crash' as elliptical for a merely *conditional* claim. Geach anticipates this response. As he says,

I am prepared for the objection that I have been systematically equivocating upon two senses of 'going to happen': what actually will happen, and – well, what? What will happen if nothing prevents it, perhaps. My complaint now is not that this phrase just boils down to 'What will happen unless it doesn't'; for I myself do not identify what does not happen with what is prevented. But I do say that the explanation is useless. For what is prevented is always something that is going to happen, in the very sense of 'going to happen' that we are supposed to be explaining; 'prevent' has to be explained in terms of *this* 'going to happen', so

we cannot use ‘prevent’ to explain it. As for the ‘actually’ in ‘what will actually happen’, it has no more logical force than a thump on the table has.⁹

⁹ Geach 1977: 51-2. Note: Geach here contends that no wedge can be driven between what was *going to happen* and what was such that it *would* (or even *would actually*) happen. What was going to happen *just is* what would actually happen, and vice versa. According to Geach, then, “X will happen” and “X is going to happen” are, in a certain sense, equivalent. However, Geach does *not* rely on the claim that the English “will” and “is going to” constructions function equivalently in all contexts; this thesis is clearly false. For instance, there is an important difference between the underlined constructions in (1) and (2):

- (1) You shouldn’t sit on that rock. The rock will fall (if you do, so you had better not make it fall). AND
- (2) You shouldn’t sit on that rock. The rock is going to fall (already, so you had better not fall with it).

Or consider an example from Copley (2009: 79): you are driving along the highway and see a billboard. Compare if it says:

- (3) We will change your oil in Madera. OR
- (4) We are going to change your oil in Madera.

Again, (3) and (4) invite different readings. In the context, (3) is an offer: We will (are offering to) change your oil in Madera if you want your oil changed in Madera. (4) sounds like something of a threat: We are going to change your oil in Madera (so you’d better get ready!). Note: someone asserting (1) and (3) (in the relevant ways) needn’t be asserting any claim about the future (in particular, that there will be a rockfall or that your oil will be changed in Madera). But (2) and (4) indeed do appear to make predictions. The point, then, is this. In neither of these cases is “will” being used to say something about the future itself. The relevant claim (for Geach) is only that “X will happen” and “X is going to happen” are equivalent when the “will” is predictive (says something about the future). When the “will” is *not* predictive in this way, then of course it isn’t equivalent to “is going to”. (Notably, there are ways of forcing a predictive reading of (1) and (3), for instance: “We will change your oil in Madera. Then your car will be taken to ...”. If we force such a reading, then the claim seems equivalent to “We are going to change your oil in Madera. Then ...”) At any rate, Geach’s claim that no wedge can be driven between what was going to happen and what would actually happen does not depend on the relevant “will” and “is going to” constructions being equivalent across all contexts; cases such as those above are thus, in themselves, no threat to Geach’s argument. For a comparison, someone who maintains that no wedge can be driven between what you *must* do and what you are *obligated* to do (plausibly) does not rely on the thesis that the English words “must” and “obligated” function equivalently in all contexts. Plainly, when “must” is employed as an *epistemic* modal (“Joe must be in the pub today”), it is not equivalent to “must” when it is employed as a *deontic* modal (“Joe is obligated to be in the pub today”). (I thank Brian Rabern for suggesting this comparison.)

In other words, Geach claims that some notion of something's 'going to happen' is required for an analysis of prevention. The point is subtle, yet important. What is prevented is that which was *in some sense* going to happen. But in what sense? Here, one cannot say: in the sense that it was going to happen unless something prevented it. For this sense of 'going to happen' already *includes* the notion of prevention, and what we are looking for is the sense in which what is prevented was 'going to happen'. According to Geach, prevention cannot be properly analyzed without appeal to what is 'going to happen' *simpliciter*. The concept of prevention embeds the concept of what was 'going to happen', and what was going to happen sometimes doesn't. Thus, this way of explaining away the appearance of a changing future fails.

Of course, this strategy of responding to Geach would be back on the table if one could provide an alternative account of prevention – an account that does not identify the prevented with what was going to happen but did not. Again, the objector wishes to explain away the appearance of a changing future in Geach's examples; it was never really true that the plane was going to crash, only that it was going to crash unless prevented from crashing. But here Geach complains that what is prevented *just is* what was going to happen.¹⁰ Geach's (unspoken) challenge, then, is to provide an analysis of prevention that does not identify the prevented with what was going to happen but

¹⁰ According to the mutable futurist, we find it natural to suppose that we sometimes prevent *what was going to happen*. And Geach argues that we cannot understand this as preventing what was going to happen *unless prevented* – for this notion already *includes* the notion of prevention. But it is important to note that the mutable futurist needn't *deny* that we prevent what was going to happen unless prevented. Rather, she just maintains that this isn't *all* we prevent: we also (sometimes) simply prevent *what was going to happen*.

didn't. And, in the only explicit critical discussion of Geach's view of which I am aware, Jonathan Kvanvig aims to do precisely that.¹¹

As an analysis of prevention, Kvanvig offers us this:

The truth of p is prevented by S =df. S 's doing A is causally sufficient in the circumstances for the falsity of p , and the circumstances apart from S 's doing A are such that p would have been true, were those circumstances to obtain.¹²

Kvanvig analyzes what it is for an *action* to prevent the truth of a *proposition*. However, we might wish for a more general account of prevention; presumably non-agential causes can still be preventative. Moreover, I find it more natural to think in terms of one *event* preventing another. Hence, I propose to replace Kvanvig's analysis with the following (compatible) analysis, where X and Y are *events*:

X is prevented by Y =df. Y is causally sufficient for X 's failing to obtain, and had Y not obtained, X would have obtained.

Let us call the proposed analysis *the counterfactual analysis of prevention*. The idea here is familiar enough. On this analysis, the pilot's action prevented the crash because, had the pilot not acted, the plane would have crashed, and the pilot's action was sufficient for the plane's not crashing. Isn't this a satisfactory analysis of prevention? Geach identifies the prevented as that which was going to

¹¹ There are, however, brief statements of Geach's view in Anthony Kenny's 1987: 53-54, in the Introduction to Fischer 1989: 23-25, in Freddoso 1986, and in Dummett 1982: 87. More recently, my coauthors and I provide a brief description of the view in Fischer, Tognazzini, and Todd 2009. Finally, criticism of the view (as developed in Todd 2011) has recently appeared in Byerly 2014: 25 – 27. I hope to address Byerly's criticisms in future work.

¹² Kvanvig 1986: 10.

happen but did not. Kvanvig's counterfactual account identifies it as what would have happened had something else not.¹³ The pilot's action prevented what was going to happen in the sense that it prevented what would have happened had he not acted.

But the counterfactual account of prevention faces problems. First, it appears to lead to an explosion of preventions. Consider the following case. Presumably nearly everyone in Los Angeles went to bed at roughly the normal hour last night. Now, what would have happened had they not? Well, it is hard to say, but we can imagine that there would have been some additional car-crashes today (on account of drowsy drivers) and perhaps some additional fights (on account of irritability), and a great deal else. But everyone's going to bed at the normal hour was causally sufficient for these things not happening. Now, suppose some intrepid reporter at the L.A. Times, desperate for a story, and getting hold of the counterfactual account of prevention, pens the following:

Actions of L.A. Residents Prevent Car Crashes and Fights

In what would prove to be a fortunate turn of events, most L.A. residents went to bed at the normal hour last night, thereby preventing the great many car crashes and fights that would have resulted had they not.

This is not an altogether comfortable result for the counterfactual account of prevention. One might think it more appropriate to deny that L.A. residents going to bed at the normal hour prevented all this from happening. But the counterfactual account of prevention would have it that this is precisely what they did. Examples such as this could be multiplied, but the point is clear. A great many things that would have happened had something else not are not generally thought to

¹³ Of course, other philosophers have sought to analyze prevention counterfactually; I focus on Kvanvig only because Kvanvig explicitly focuses on Geach. See, e.g. Dowe 2001. I believe Dowe's analysis, while slightly different than Kvanvig's, is subject to the same problems.

have been *prevented* from happening. Geach has a diagnosis of why not: they were never going to happen in the first place.¹⁴

Of course, this problem for the counterfactual account of prevention does not decisively refute the account. But there are other potential problems for the view. It is well-known that such counterfactual accounts face problems arising from overdetermination. Consider this example suggested to me by Kenneth Boyce:

Nuclear war is not going to happen because the adversaries of the United States have firmly decided that they will not launch their nuclear weapons (in such a way as to causally settle the matter), regardless of whether Obama chooses to sign the peace treaty. But Obama does sign the peace treaty, and his doing so is also causally sufficient for nuclear war's not happening. However, in all the nearest worlds in which Obama does not sign the peace treaty, it is because McCain won the election. And in all those worlds, McCain launches American nuclear weapons, thereby causing nuclear war. So we have it that Obama does something that is causally sufficient for nuclear war's failing to occur, and we have it that had Obama not signed the treaty, nuclear war would have occurred. Yet it is false that Obama prevented nuclear war, since his adversaries had already decided not to launch the nuclear weapons regardless of whether he signs the treaty.

¹⁴ Compare Geach's example:

It is this that creates the absurdity in the schoolboy's essay on 'The Uses of Pins', which concluded with: 'Finally, pins save millions of lives every year by not being swallowed'. To save millions of lives is to prevent its coming about that millions die; and in this case we should not normally say that millions of people were going to die that year, only keeping pins off the diet saved them. What we should normally say is not, in my view, the norm of truth; but it is because we should not normally *say* all these millions were going to die that year that it *sounds* absurd to say that keeping off pins in the diet prevented their death. (1977: 47)

Geach, however, is not susceptible to this problem: given the firm intentions of the U.S.'s adversaries, nuclear war is not going to happen, and thus Obama does not prevent it by signing the treaty. Several features of this counterexample deserve brief comment. First, it relies on the Lewis-Stalnaker account of the truth of counterfactuals, namely that their truth is determined by so-called 'nearness' to the actual world. Second, it exploits overdetermination: Obama's signing the treaty overdetermines that there is no nuclear war. Third, it relies on the truth of a *backtracker*: had Obama not signed the treaty, then McCain would have been elected (and would have launched American nuclear weapons).

Again, even if the above case does not decisively refute the counterfactual account, what is clear is that the view faces problems – indeed, problems the diagnosis of which seem to point towards Geach's account of prevention. And whether *any* counterfactual analysis of prevention can be successful is far from clear – especially so clearly successful as to make its adoption mandatory in the face of Geach's. However, if indeed no counterfactual account of prevention can be successful, then what would seem the most promising way of explaining away the appearance of a changing future is lost. Reconsider Geach's plane crash case. The plane was going to crash, but the pilot prevented this from happening. Geach sees here a changing future. But if one is averse to a changing future, by far the most natural thing to say about this case is simply that the pilot prevented what was going to happen simply in the sense that the plane would have crashed had the pilot not acted. However, it turns out that this counterfactual *does not* capture the fact that the pilot prevented the plane from crashing; prevention cannot be analyzed counterfactually. How then to explain away the appearance of a changing future? It isn't clear.

Such is, in brief, Geach's case for a mutable future based on the nature of prevention. I now turn to three other ways of motivating the mutability of the future not explicitly envisaged by Geach.

4. Fatalism

We are all familiar with arguments for fatalism. The fatalist contends that prior truths specifying what we will do in the future are incompatible with our having free will, understood as the ability to do otherwise than those things. In other words, if it was true 100 years ago that I would write this paper, then I could not have done otherwise than write it. This is the fatalist's first claim. The fatalist's second claim is that, as a matter of logic, or as a matter of common sense, or as a matter of something else, we will have to say that for anything that happens, it always was the case that it would happen. If it is happening, that implies that it always was the case that it was going to. So the fatalist concludes that we are never able to do otherwise than what we in fact do.

There are familiar replies to arguments for fatalism. The standard reply agrees with the fatalist's second claim but attempts to deny his first, that from its having been true that I would write this paper that it follows that I could not have refrained from writing it. On this line of thinking, from the mere fact that it was true ahead of time that I would do something, it shouldn't – and doesn't – follow that I couldn't have refrained from doing it. Following A.N. Prior, we can call such replies versions of 'Ockhamism'.¹⁵ On the other hand, there are broadly 'Aristotelian' or 'open future' replies. These replies agree with the fatalist's first claim, but as a result try to find ways of denying his second, that it follows from the fact that I am doing something that it always was the

¹⁵ See Prior 1962 and 1967. See further the essays in Fischer 1989 and Fischer and Todd 2015.

case that I would do it. The traditional such view here instead contends that, if I indeed freely wrote this paper, then 100 years ago (say) it was neither true nor false that I was going to write it.

Here it will be instructive to compare the ways in which the mutable futurist can respond to arguments for fatalism with the more familiar options glossed above – the only options the philosophical literature has yet recognized. Clearly, any argument for fatalism starts with the premise that it was true at some time in the past that one would perform some given action. But now recall Geach's rhetorical question from above:

But if something did happen, doesn't this show it was after all going to happen? Certainly; but not that it *always* was going to happen.¹⁶

Thus, Geach *denies* the inference from something's happening to its always having been the case that it would happen. Here, then, the mutable futurist shares a significant commonality with familiar Aristotelian 'open future' views, which also deny this thesis. According to the mutable futurist, that is, there is no reason why (in any given case) we *must* grant the fatalist's contention that it was true at the relevant time that we would perform the given actions. And without this claim, clearly, no argument for fatalism can be constructed. So the first way the mutable futurist can reply to the fatalist is clear: deny (or say we have no reason to accept) whatever premise it is that asserts that it was true in the past that one would perform the given action.

But mutable futurism opens up another way of replying to the fatalist, a way that distinguishes it from Aristotelian 'open future' views. Recall that such views *agree* with the fatalist's first claim – the claim that if it really *was* true that I would perform a given action, then I could not

¹⁶ With respect to Geach's "certainly" here, one could interpret him as engaging in a bit of rhetorical flourish; the mutable futurist could seemingly admit that there can be instantaneous spontaneous happenings which were at no prior time going to happen.

have refrained from performing it. Here, however, the mutable futurist and the Aristotelian part ways, and the mutable futurist in fact agrees with the Ockhamist. That is, the mutable futurist denies *both* of the fatalist's claims – both that prior truth rules out freedom, *and* that we are committed to such truths in the first place.

To see how the mutable futurist denies the fatalist's first claim, consider the following. Suppose it is now t_3 , and suppose it was true at t_1 that I would perform X at t_{10} . Other things being equal, it is perfectly open to the mutable futurist to contend that I can refrain from doing X at t_{10} , despite its having been true at t_1 that I would do X at t_{10} . That is, I could very well have the power to change the future between now (t_3) and t_{10} , such that while it was true up until (say) t_7 that I would do X at t_{10} , it then becomes false that I will perform X at t_{10} . More simply, even if it was true at t_1 that I would do X at t_{10} , it is still perfectly open to the mutable futurist to maintain that I can, even at t_{10} , refrain from doing X, in which case what was going to happen will simply have failed to happen. In other words, it is perfectly open to the mutable futurist to contend that we sometimes (or even a great deal of the time) have the power so to act that the future changes, or so to act that what was going to happen in fact doesn't. Thus, on MF, it certainly doesn't follow from its having been the case at t_1 that one would do X at t_{10} that one cannot do otherwise than X at t_{10} .¹⁷ To claim otherwise, Geach would say, is simply to ignore our powers of prevention.

So the mutable futurist agrees with the Ockhamist that the fatalist's first claim is false. Here, however, we must note the substantial way in which such views nevertheless come apart. According

¹⁷ Look at it this way. On MF, recall, from the fact that at t_1 it was true that X was going to happen at t_{10} , it does not follow that, if we are at t_{20} , looking backwards at t_{10} , that X *happened* at t_{10} . Now, if it doesn't follow from its having been true that I would do X at a given time that (looking backwards) I even *did* X at that time, it will be hard to see how it could follow from its having been true that I would do X at that time that I *could not have done otherwise* than X at that time. The relevant facts lack even the 'oomph' to guarantee that I *did* the thing, much less that I couldn't have refrained from doing it.

to MF, one's power to refrain from doing X at t_{10} despite its having been true at t_1 that one would do X at t_{10} is simply the power so to act that the future changes, or so to act that what was going to happen ends up not happening. Not so, according to the Ockhamist. According to the Ockhamist, the future is immutable. But it is not, so they would contend, on that account *unpreventable* – we can still avoid doing the things that we will, in fact, do. By the Ockhamist's lights, then, one's power to refrain from doing X at t_{10} despite its having been true at t_1 that one would do X at t_{10} is the power so to act that *it never would have been true* that one would do X at t_{10} . That is, the Ockhamist's claim is that, if I could have done otherwise than write this paper, then I had the power so to act that it would not have been true 100 years ago that I would write it. The power was *not* the power to change the future to a non-writing future or the power so to act that what was going to happen ends up not happening, but the power so to act that it never would have been true in the first place that I would write the paper. And here we have a substantial divide between the two views. The standard position posits a certain sort of power of the past truth of propositions, a power so to act that they would never have been true at all. The mutable futurist, however, is committed to no such power.

At this point, it is worth simply noting that many would regard this feature of the mutable futurist's position to be an advantage of the view. Many, that is, have thought that such power over the past truth of certain propositions is an odd, mysterious sort of power to have. What can I do about the fact that a certain proposition was true 100 years ago? How could I have any sort of power over the fact that a certain proposition was then true – regardless of what that proposition was 'about'?¹⁸ It is, of course, the oddness of this sort of power that (for some) accounts for the

¹⁸ One could press a similar worry as follows. Certainly a standard reply to the fatalist contends that the explanatory direction moves from my writing this paper *now* to its having been true 100 years ago that I would write it. But this can seem odd, given certain views about the ontology of time. How could the truth of something 100 years ago in any way have then depended on me or what I do *now*, when I didn't even *exist* then? For more on this issue, see Rea 2006.

appeal of open future views – and fatalism – which deny that we have it. The lesson here is this. Both of the standard replies to the fatalist have costs, or anyway are widely thought by the opposing camps to have costs; that the standard ‘Aristotelian’ view denies bivalence, for instance, is widely regarded to be a cost for the view.¹⁹ So the mutable futurist might motivate her view as follows. We need a reply to the fatalist, and the other replies to the fatalist are unsatisfactory. At any rate, it is clear that the mutability of the future opens up new space in some thoroughly worked-over dialectical terrain, and it may very well have certain advantages over the crop of views currently (and historically) on the table.

5. The utility of foreknowledge

We have all been in situations in which we have thought to ourselves how nice it would be if we only knew what was going to happen tomorrow, or in a week, or next year. I’m currently shopping for an airline ticket. Should I buy right now, or should I wait? Hard to say, but the decision would be made much easier if I simply knew whether prices are going to go up, stay the same, or go down. If they’re going to go down, best to wait, clearly. If I only knew! Again, we’re all familiar with such situations, situations in which knowledge of what’s going to happen would be clearly useful to us in arranging the world as we see fit. Now, other things being equal, it seems that the more knowledge

Here it is worth briefly mentioning how mutable futurism relates to different positions concerning the ontology of time. Eternalism is the view that past, present, and future objects all equally exist. Mutable futurism would seem plainly to require non-eternalism. As Geach says (somewhat cryptically), “future-land is a region of fairytale” (1977: 53). The mutable futurist’s non-eternalist options are *presentism*, which holds that only *present* objects exist, and the *growing-block theory*, which holds that both past and present (but no future) objects exist.

¹⁹ However, for an argument that one can be an open futurist (in the relevant sense) *without* denying bivalence, see Todd forthcoming. On this view (the view that I favor), future contingents are systematically *false*, not neither true nor false.

one has in these respects, the better. That is, it seems that if one knew a great deal about what is going to happen, one would be in a correspondingly great position to bring about what one wants in the world and to exploit such knowledge for one's own purposes.

So, anyway, you might understandably suppose. However, there are in fact powerful arguments for the paradoxical conclusion that – given standard assumptions about the immutability of the future – such knowledge would in fact be entirely *useless* for one. You initially might have supposed that total knowledge of what's going to happen would grant you extraordinary powers, but given the standard view about the future, this (very plausibly) turns out to be a mistake, as I will explain shortly. So the mutable futurist might reason as follows. This *shouldn't* be a mistake, and so the standard view is implausible. Total knowledge of the future *should* be useful, but it is useful only if the future is mutable. And so it is. Of course, the question of whether 'total knowledge' of the future would be useful will be well-known to many philosophers familiar with such debates in the philosophy of religion, from which this argument draws its inspiration. That is, there has been a great deal of discussion (to which I won't attempt to do full justice) concerning whether God's foreknowledge – God's total knowledge of what's going to happen – could possibly help God in governing the world as God sees fit.²⁰ And some have supposed that it could not. Our question is simply the conceptual one of whether (and under what suppositions) such philosophers are right.

Consider, for example, the following question, taken up by William Hasker. Suppose Susan asks God for advice concerning which of two individuals to marry. Could God's total knowledge of the future help God in giving her advice? Apparently not, says Hasker:

God *cannot* use his foreknowledge in guiding [Susan] about her decision. For the future situation which God foreknows is, of course, a situation in which she *already* is married to

²⁰ For a start, see, e.g. Hasker 1989, and Hunt 1993, 1997, 2004, and Robinson 2004.

one of the two men (or, perhaps, to neither) – and since the decision’s *actually having been made* is presupposed by God’s *knowledge* of the future, he cannot possibly *use* that knowledge in deciding how to *influence* that decision. And in general, it is clear that God’s foreknowledge cannot be used either to *bring about* the occurrence of a foreknown event or to *prevent* such an event from occurring. For what God foreknows is *not* certain antecedents which, unless interfered with in some way, will *lead to* the occurrence of the event; rather, it is *the event itself* that is foreknown as occurring, and it is contradictory to suppose that an event is *known* to occur but then also is *prevented* from occurring. In the logical order of dependence of events, one might say, by the “time” God knows something will happen, it is “too late” either to *bring about* its happening or to *prevent* it from happening. God’s guidance of [Susan] with respect to her marriage must be *independent* of God’s knowledge of her actual future.²¹

So God cannot use God’s knowledge of Susan’s future marital status to help her in making her decision. But perhaps foreknowledge could be useful in other ways; perhaps God, knowing that Susan is going to marry Kenneth, can act on the basis of such knowledge to improve their eventual marriage. But, even this won’t do, Hasker contends, for God will also know the precise details of that eventual marriage, and so it would be “too late” to improve. Ultimately, he says, God’s foreknowledge of Susan and Kenneth’s marriage presupposes the entire causal history which actually culminates in that particular marriage (in all of its particular detail). Hasker thus concludes:

We are inclined to think, albeit unconsciously, of God’s foreknowledge along the lines of the limited foreknowledge we ourselves sometimes have, when we see certain events coming that are *not* contingent upon anything we may choose to do or refrain from doing. In such

²¹ Hasker 1989: 57-8.

cases the actions that we take in view of our foresight lead to no paradox. But if we could foresee *everything*, then for us, as for God, it would be too late to do anything about it.²²

Such is (in brief) Hasker's case for the uselessness of total knowledge of the future. Of course, whether Hasker is right in these respects is deeply complicated and controversial, and perhaps chief amongst his critics has been David Hunt. Quoting the last passage, Hunt writes:

The situation as Hasker describes it is *prima facie* odd. He allows that God might gain some advantage if his knowledge of the past and present were augmented with *limited* foreknowledge...but he insists that God would *lose* this advantage if he had *unlimited* foreknowledge...But why should the acquisition of even *more* knowledge make God's position *worse*?²³

Now, suppose you agree with Hunt about this much – that the situation as Hasker conceives of it is *prima facie* odd. Suppose it still seems to you, in other words, that total knowledge of the future *should* be useful, as mentioned at the beginning of this section. But suppose you *disagree* with Hunt that he (or someone else) has shown that God can indeed employ total foreknowledge in the relevant ways; in other words, suppose that you nevertheless still find Hasker's case persuasive – holding fixed, of course, certain crucial assumptions about the nature of the future. You might then have reason to call those operative assumptions into question.

Here it is instructive simply to see how the situation looks according to the mutable futurist. Recall Hasker's contention from above:

²² Hasker 1989: 62.

²³ Hunt 2001: 100.

It is clear that God's foreknowledge cannot be used...to *prevent* such an event from occurring...It is contradictory to suppose that an event is *known* to occur but then also is *prevented* from occurring. In the logical order of dependence of events, one might say, by the "time" God knows something will happen, it is "too late" ... to *prevent* it from happening.

Now, this is, of course, precisely what the mutable futurist denies.²⁴ According to the mutable futurist, the future is not somehow "fixed" or "given" logically and explanatorily posterior to all the possible interventions we may bring about. Rather, there is what's going to happen, and then, posterior to *that*, there are the things we may do to effect or otherwise change those things. We thus have a radically different conception of the future than the one presupposed by Hasker (and, indeed, Hunt). On this view, there are no immutable facts specifying what "happens" in the future, so *ipso facto* no possible foreknowledge of such facts. There is just what is presently going to happen, and what is going to happen may change over time. So there is no reason why God couldn't use God's knowledge of what Susan's marriage is going to be like to recommend to her certain courses of action, even courses of action on which she avoids that very marriage, which perhaps was going to be a bad one. The point here is thus as follows. On the mutable future view, knowledge of what is

²⁴ Well, not quite: the mutable futurist might very well agree that it is contradictory to suppose that an event is known to "occur" (present-tensedely, perhaps), as Hasker says, but is also prevented from occurring, but she will deny that it is contradictory to suppose that someone knew that an event was *going* to occur but that that event was prevented from occurring. Similarly, on non-mutable future views, it may make sense to say that God's foreknowledge of a given decision presupposes "the decision's *actually having been made*," as Hasker says above, but the mutable futurist would have to insist that such statements betray a failure to take tense seriously: God's foreknowledge of a decision certainly does not (in some sense) presuppose its *having* been made – only that it is *going to* be made.

going to happen – even total knowledge – is clearly and unambiguously useful, and its usage threatens no paradox whatever. And some may account this an advantage of this view.²⁵

6. The semantics of the English progressive

In this final section, I consider some applications mutable futurism has with respect to longstanding difficulties in providing a semantic (truth-conditional) analysis of the English progressive.²⁶ The goal here is not to provide such an analysis, but rather simply to display the novel ways in which the mutable futurist could use her position to aid in providing one.

With respect to providing a semantic analysis of the progressive, the Holy Grail has been to state the truth conditions of progressive sentences in terms of their perfective correlates. There is, however, considerable skepticism about whether this can be done.²⁷ Consider, for example, the following instance of the progressive:

(1) Mary is baking bread.²⁸

²⁵ There is another way of motivating MF in the neighborhood here worth mentioning, namely, via the paradoxes concerning *agency* associated with knowing everything one will do in the future; being an agent may require deliberation or acquiring intentions, say, and knowing everything one will do may be incompatible with these things – on the assumption of an immutable future. So the mutable futurist might reason as follows: knowing everything one is going to do *shouldn't* undermine agency, but it does unless the future is mutable. And so it is. For more on the relevant problems for agency, see Taylor 1964, Kapitan 1990, and Hunt 1997 and 2001.

²⁶ Of course, the progressive appears in other natural languages besides English, but for reasons of space and ease of presentation I focus only on the progressive in English.

²⁷ For example, Szabó says, “a semantic analysis of progressive sentences in terms of their perfective correlates is a more or less hopeless enterprise,” and in turn cites others along the same lines. See Szabó 2004: 31.

²⁸ I owe this example, and the inspiration for this section, to a blog post from Joshua Spencer, and subsequent conversations with Neal Tognazzini.

Under what conditions is (1) true? One might initially think to say something simple like this:

(S) Mary is baking bread iff Mary is engaged in activities that will culminate in there being some bread that has been baked by Mary.

And so on similarly for other progressives.²⁹ But (S) faces (allegedly) insurmountable problems, which can be brought out by noting the following. Mary could very well have been baking bread in the kitchen, when all of a sudden it exploded, preventing any bread from actually getting baked by Mary. In short, that Mary *was* baking bread in the kitchen does not entail that any bread actually got baked. And so (S) – which apparently says that it does – fails.

So we (allegedly) don't want to say that Mary is baking bread iff she is engaged in activities that *will* culminate in there being bread, but iff ...what? Intuitively, if we don't say this, we'll have to start 'conditionalizing' in various ways and appealing to 'normal conditions' or the 'natural development of events' or some such. That is, we'll have to say something like this, suitably refined: Mary is baking bread iff she is engaged in certain activities such that the natural development for those activities results in bread – such that, *if* those activities proceed 'naturally' or 'normally' then we'll have some bread. And such appeals to normalcy are precisely what we find in the literature. Consider, for instance, Dowty's influential 1977 analysis, which appealed to so-called "inertial worlds."³⁰ The basic idea was this. Take all the possible worlds that share the history of the actual world up to a time and thus represent possible continuations of the actual world after that time. If

²⁹ More generally, the intuitive proposal (to be refined) is that *Prog*[ϕ] is true iff there are processes in place that will culminate in [ϕ]. So, departing slightly from (S), we say that Mary *is* baking bread iff there *are* processes in place that *will* culminate in there being bread baked by Mary, that she *was* baking iff there *were* such processes that *were going to* culminate in bread baked by Mary, and that she *will be* baking iff there *will be* such processes.

³⁰ See Dowty 1977.

some bread will be baked by Mary in all such worlds in which everything proceeds in the ‘normal’ or ‘natural’ way, then and only then is she baking bread; just because there are some worlds where there won’t be any bread because something extraordinary happens doesn’t entail that she isn’t baking any, but if there are worlds (as there would be if, say, she is in fact merely driving to the store) where everything proceeds ‘naturally’ or ‘normally’ in which no bread gets baked by Mary, then she isn’t baking bread. Dowty’s proposal had problems, however, and the story from here is the familiar one of revisions, counterexamples, more sophisticated revisions, and more sophisticated counterexamples.³¹ But while various improvements on Dowty’s analysis have been made, all such proposals have still helped themselves to some analogue of the ‘natural’ or ‘normal’ or ‘reasonable’ continuation of a given event or events, the central idea once again being that *if* we restrict our attention to some or all such continuations, we get bread. The problem wasn’t Dowty’s appeal to normalcy, but that he appealed to it in the wrong way.

Set aside the disputed question of whether some such analysis can be constructed that is in fact counterexample free and thus can be made to work even on its own terms. Instead, note that all such analyses will have to help themselves to by what all accounts seems like a mysterious, unexplained semantic primitive, viz., the notion of a ‘natural’ or ‘normal’ or ‘reasonable’ continuation of an event or events. Just what constitutes ‘normal conditions’? Or what distinguishes those continuations of an event that are ‘reasonable’ for that event and those that are not?³² Now

³¹ For a good account of this story, including how initial ‘simple’ analyses (in the basic spirit of (S)) from Montague (1969) and Scott (1970) were rejected because of the noted problem with (S), see Szabó 2004.

³² So, for instance, Landman’s (1992) account (which is, once modified as suggested by Szabó, seemingly the best account on offer) appeals to “reasonable” options for the continuations of events. Commenting, Szabó says, “Normally ‘Mary is swimming across the Atlantic’ is false when Mary is swimming towards the United States, because a world where she gets across is not a reasonable option for her swimming in the actual world.” 2004: 36. Clearly, any such account will face the

this is, perhaps, a question only a metaphysician would ask (or care about). Nevertheless, it does seem like a legitimate question to ask, *even if* an analysis employing some notion of ‘normalcy’ could be made to work (which is certainly far from clear). We thus have incentive to stick with a simple analysis such as the one proposed in (S), an analysis on which Mary’s baking bread *does* imply that some bread will be baked by Mary. Anyway, it is something of a tragedy that such an analysis should fail, thus forcing us down the dark and bitter path of ifs, unlessees, and appeals to the ‘normal’ or ‘reasonable’ continuations of events.

At this point, however, the mutable futurist may begin to wonder if the tragedy can be averted. That is, she may begin to wonder if the problems for the original proposal (S) are really so decisive. Recall the proposal: Mary is baking bread iff she is engaged in activities that will culminate in there being some bread that has been baked by Mary. And recall the problem. We want to be able to say that Mary was baking bread when the kitchen exploded. But the point here is simple. According to the mutable futurist, we can say both. That is, we can say both that the fact that Mary was baking bread entailed that some bread was going to get baked, *and* that Mary was baking bread when the kitchen exploded. Here we would simply have another case of prevention, a case in which what was going to happen – that there be some bread – was prevented from happening. She was baking bread, this entails that some bread was going to get baked, but the kitchen exploded, and so none did. So there is in fact no conflict between (S) and what nearly everyone agrees that we should be able to say, namely that Mary could have been baking bread even though there is no bread to be shown for the effort. And this opens up some room to say that we may not have to walk down the dark and bitter path after all.

So consider the following bit of reasoning the mutable futurist might employ:

challenge of explaining in some principled way the difference between “reasonable” and “unreasonable” options for events.

- (1) If Mary was baking bread, then some bread was going to be baked.
- (2) Mary was baking bread when the kitchen exploded. So,
- (3) What was going to happen didn't happen; that is, the future is mutable.

As we've seen, the cost of denying (1) is that we'll have to give up on the far simpler and more elegant analysis of the progressive it affords, and instead begin down the difficult path specified above. And the cost of denying (2) is simply that it is, for most, extremely intuitively compelling. There is a way of hanging on to both, however, and the result is a mutable future.

We can sum up as follows. A satisfying semantic analysis of the progressive has been notoriously elusive. The primary underlying cause of this fact has been the widespread assumption that progressive sentences do not always entail the relevant perfective correlate: that Mary is baking bread does not entail that there will be some bread baked by Mary. If one could help oneself to this entailment, however, then all manner of problems that have plagued accounts in the literature would simply disappear. And this is an entailment the mutable futurist is uniquely in position to accommodate. Of course, I don't here claim that *all* problems with analyzing the progressive would disappear given this entailment, nor do I claim to have provided such an analysis or to have pursued the various outstanding issues the mutable futurist attempting to provide one would need to address. The claim is only that, for the mutable futurist, this task looks far easier and the prospective results far simpler and more elegant.

7. Conclusion

In this paper, I have tried to explain and motivate a radically new view about the nature of the future. We are all familiar with claims about how we might change the future, but almost no philosophers have seriously articulated and defended the view in question. I have sought to begin to do so here. Again, I don't claim that the above considerations are decisive on behalf of the mutability of the future. I claim only that they are *interesting* and that they point to what many reasonable philosophers may regard as advantages of such a view. The view provides a novel account of the nature of prevention, can provide a novel response to the fatalist, can account for the utility of total knowledge of the future, opens up new pathways for analyzing the English progressive, and may have more advantages besides. Of course, it is not for no reason that the alternative view has been dominant for so long, and many, I'm sure, will continue to find the view in various ways counterintuitive. Perhaps others will not, however, and, like Geach, will find the view natural and plausible – if they only heard it seriously considered and developed. Here I have tried to begin to give the view its due.³³

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